REMARKS

Claims 1, 3-6, 8-15, 23, 24, 26-33, 35-42, 44-52, 59-67, 69-78, and 80-111 are pending in the application. Claims 1, 3-6, 8-12, 30, 32-38, 60-67, 69, and 103-110 are allowed. Claims 13-15, 23, 24, 26-29, 39-42, 44-46, 48-57, 59, 70-102, and 111 are rejected. Claims 27, 32, and 79 are objected to. Claims 27 and 32 have been amended above to adjust their dependencies and claim 79 has been canceled.

STATEMENT UNDER 1.133(b)

The undersigned representative would like to thank the Examiners for the courtesy of the telephone interview of 4 November 2008 in which the undersigned, Examiner Roy, and Examiner Casler participated. During the interview it was noted that claims 27 and 32 depend in part from claims that have been canceled and that claims 78 and 79 are substantial duplicates of each other. In addition, it was agreed that all outstanding art-based rejections have been overcome and that the Patent Office would withdraw all such rejections.

CLAIM OBJECTIONS

Claim 27 is objected to because of the following informalities: "Claim 27 is dependent on claims 13, 16, and 18 and claims 13 and 16 have been cancelled." As an initial matter, however, Applicant notes that claim 13 is not cancelled. Rather, claims 16 and 18 are cancelled. As such, claim 27 has been amended above to delete the dependence from claims 16 and 18 and maintain the dependence from claim 13. As such, it is believed that the objection to claim 27 is overcome.

Claim 32 is objected to because it "is dependent upon itself." The claim 32 has been amended above to depend from claim 30. As such, Applicant believes that the objection to claim 32 is overcome.

Claims 78 and 79 are objected to because claims "78 and 79 the recite the same elements." In response, claim 79 has been cancelled rendering the objection moot.

In view of the above amendments, Applicant believes that all claim objections are overcome, and respectfully requests that the Patent Office withdraw all claim objections.

REJECTIONS UNDER 35 USC § 101

Claims 13-15, 23, 24, 26-29, 39-42, 44-46, 48-57, 59, 70-102, and 111 are rejected under 35 U.S.C. 101 "because the claimed invented is directed to non-statutory subject matter. This new rejection is in view of the Interim Guidelines published on November 2005, incorporated into MPEP 2106 and views presented by the PTO on subject matter eligibility of process claims to the Court of Appeals for the Federal Circuit in *In re Bilski*, Appeal No. 2007-1130." Applicant respectfully disagrees, because the Court in *Bilski* expressly found that subject matter of the type in Applicant's claims is statutory subject matter under 35 USC 101.

Specifically, the United States Court of Appeals for the Federal Circuit states: "A claimed process is surely patent-eligible under §101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." (*In re Bernard L. Bilski and Rand A. Warsaw*, 545 F.3d 943, 954 (Fed. Cir. 2008)(en banc).) Under *Bilski*, which is controlling law, §101 processes require EITHER a machine OR a transformation, now colloquially known as the "machine-or-transformation test."

Indeed, MPEP 2106 provides that

> *USPTO personnel first shall review the claim and determine if it provides a transformation or reduction of an article to a different state or thing. If USPTO personnel find such a transformation or reduction, USPTO personnel shall end the inquiry and find that the claim meets the statutory requirement of 35 U.S.C. 101.* (MPEP2100-11)

Thus, according to the MPEP compliance with the statutory requirement of 35 U.S.C. 101 is found, and examination on this point in concluded, once "USPTO personnel find such a transformation or reduction." This is wholly consistent with *Bilski* which finds that a claimed process is "surely patent-eligible under §101 if:... it transforms a particular article into a different state or thing." (*Id.*) Therefore, the only inquiry that needs to be made with respect to Applicant's rejected claims is whether or not those claims are directed to a process that "transforms [a] particular article into a different state or thing." Applicant respectfully submits that the rejected claims satisfy this requirement based on express pronouncements of the Federal Circuit in *Bilski*.

In *Bilski*, the Federal Circuit specifically upheld transformation of electronic data representative of a physical object as patentable material. For example, the Federal Circuit

stated in *Bilski* that a dependent claim is "drawn to patent-eligible subject matter where it specified that 'said data is X-ray attenuation data produced in a two dimensional field by a computer tomography scanner.' This data clearly represented physical and tangible objects, namely the structure of bones, organs, and other body tissues. Thus, the transformation of that raw data into a particular visual depiction of a physical object on a display was sufficient to render that more narrowly-claimed process patent-eligible." (*Id.* at 962-963. Citations omitted.)

However, Applicant's rejected claims process data that "clearly represent physical and tangible objects" and effect "transformation of that raw data into a particular visual depiction of a physical object on a display." For example, in independent claims 13, 23, 39, 41, 42, 45, 52, 70, and 95 the physical object includes at least a "structure having a lumen" and for claims 13, 41, 42, 45, 70, and 95 the transformation into a visual depiction is recited at least as "rendering the wireframe model in an interactive three-dimensional display…". For claim 23 the transformation into a visual depiction is recited at least as "rendering the first and second wireframe models in an interactive three-dimensional environment", and for claim 52 the transformation into a visual depiction is recited at least as "rendering the first region of interest in an interactive three-dimensional display." For claim 39 the transformation into a visual depiction is recited at least as "interactively displaying a three-dimensional rendering of a structure having a lumen." Hence, Applicant's rejected independent claims all meet the *Bilski* requirements as claims that process data that "clearly represent physical and tangible objects" and effect "transformation of that raw data into a particular visual depiction of a physical object on a display." Consequently under *Bilski* which is cited by the Patent Office in the Office Action, all pending claims rejected under §101 are most certainly directed to patentable subject matter. The apparent error in Office Action is reliance on a test that has clearly been overruled by the Federal Circuit sitting *en banc*. The Office Action states that "process must be tied to another statutory class (such as an apparatus) AND must positively recite subject matter that is being transformed...". (Emphasis added.) This test has been expressly overruled by *Bilski* which is now a machine OR transformation test and does not require both an apparatus AND transformation.

In summary, for all of the above reasons Applicant respectfully submits that independent claims 13, 23, 39, 41, 42, 45, 52, 70, and 95 are all patentable under §101, and

likewise so are all claims that depend variously therefrom. Accordingly, Applicant respectfully requests that the Examiner withdraw all rejections under §101 of 13-15, 23, 24, 26-29, 39-42, 44-46, 48-57, 59, 70-102, and 111.

ALLOWABLE SUBJECT MATTER

Applicant notes with appreciation the indication that claims 1, 3-6, 8-12, 30, 32-38, 60-67, 69, and 103-110 are allowed.

DOUBLE PATENTING

Claim 13 "is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 8 of U.S. Patent No. 7,149,564…". Applicant has submitted herewith a terminal disclaimer in compliance with 37 CFR 1.321 (c) with respect to U.S. Patent No. 7,149,564. Accordingly, Applicant understands the double patenting rejection to be overcome, and respectfully requests that the Examiner withdraw the double patenting rejection.

In view of the foregoing remarks, it is believed that the claims in this application are in condition for allowance. Early and favorable reconsideration is respectfully requested. The Examiner is invited to telephone the undersigned in the event that a telephone interview will advance prosecution of this application.

Respectfully submitted,

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